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Future Joint Force Headquarters

Colonel J. Scott Schisser, USA

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INSTITUTE FOR DEFENSE ANALYSES

JOINT ADVANCED WARFIGHTING PROGRAM

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INSTITUTE FOR DEFENSE ANALYSES

Theodore S. Gold – Joint Advanced Warfighting Program

December 1, 2001

The report of the recently completed Quadrennial Defense Review directs the development of proposals for a prototype Standing Joint Task Force Headquarters, with a goal of establishing one such headquarters in each of the geographic combatant commands. This paper offers just such a proposal.

The paper is a product of the Joint Advanced Warfighting Program's (JAWP) exploration of new joint operational concepts and capabilities. More specifically, this work was part of a JAWP effort that developed an operational concept for enhanced joint strike force capabilities that could be achieved in the near to mid-term, a concept captured in an IDA publication, *Joint Strike Force Operational Concept*. Joint command and control was a major focus of that effort. It also included descriptions of alternative operational-level (Joint Task Force) headquarter arrangements to integrate the capabilities of air land, sea, and space forces (or from a functional perspective of information, maneuver, and fire elements).

In the current paper, author Colonel Scott Schisser elaborates on these headquarters alternatives. He describes today's Joint Task Force (JTF) headquarters—how they are activated, organized, and staffed—and assesses their shortcomings. The intent is to improve the decision-making capabilities of the JTF commander and staff. He then presents a preferred alternative: a relatively small standing joint headquarters exploiting rapidly evolving information technologies and functionally organized around the flow of information, which is quite different from today's norms.

I invite your comments and feedback, which should be directed to:

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Ted Gold

Recent and Forthcoming Publications of the Joint Advanced Warfighting Program

Experimentation

Lessons Learned: Commanding a Digital Brigade Combat Team, Rick Lynch, IDA Paper P-3616, June 2001.

US Army and US Marine Corps Interoperability: A Bottom-up Series of Experiments, Rick Lynch, Tom O'Leary, Tom Clemons, and Doug Henderson, IDA Paper P-3537, November 2000.

Experimentation in the Period Between the Two World Wars: Lessons for the Twenty-First Century, Williamson Murray, IDA Document D-2502, October 2000.

Lessons Learned from the First Joint Experiment (J9901), Larry D. Budge and John Fricas, IDA Document D-2496, October 2000.

The Joint Experiment J9901: Attack Operations Against Critical Mobile Targets, Joint Advanced Warfighting Program, September 29, 2000. Prepared for the US Joint Forces Command.

Joint Warfighting Experimentation: Ingredients for Success, James H. Kurtz, IDA Document D-2437, September 2000.

Framework for Joint Experimentation—Transformation's Enabler, Karl Lowe, IDA Document D-2280, January 1999.

Joint Concept Development

Applying Rapid Decisive Operations: Possibilities for 2010, Karl H. Lowe, IDA Paper P-3602, December 2001.

Future Joint Force Headquarters, Scott Schisser, IDA Paper P-3601, December 2001.

Enabling Strategic Maneuver, Joseph Sokol, forthcoming, 2001.

A Historical Perspective on Effects-Based Operations, Williamson Murray, with Thomas O'Leary, Joel Resnick, Dennis Gleeson, and Gwen Linde, IDA Paper P-3606, forthcoming, 2001.

Taking the Revolution in Military Affairs Downtown: New Approaches to Urban Operations, William J. Hurley, IDA Paper P-3593, August 2001. For Official Use Only.

Joint Strike Force Operational Concept, Rick Lynch, David Bolanos, Thomas Clemons, Kathleen Echiverri, Dennis J. Gleeson, Jr., Doug Henderson, Aleksandra Rohde, Scott Schisser, IDA Paper P-3578, July 2001. For Official Use Only.

New Perspectives on Effects-Based Operations: Annotated Briefing, Dennis J. Gleeson, Gwen Linde, Kathleen McGrath, Adrienne Murphy, Williamson Murray, Tom O'Leary, Joel B. Resnick, IDA Document D-2583, June 2001.

War and Urban Terrain in the Twenty-First Century, Williamson Murray, IDA Paper P-3568, November 2000.

Military Operations in Urban Terrain: A Survey of Journal Articles, D. Robert Worley, Alec Wahlman, and Dennis Gleeson, Jr., IDA Document D-2521, October 2000.

Transformation Process

Red Teaming: Shaping the Transformation Process. Annotated Briefing, John Sandoz, IDA Document D-2590, June 2001.

Thinking About Innovation, Williamson Murray, IDA Paper P-3576, June 2001.

Red Teaming: A Means for Transformation, John F. Sandoz, IDA Paper P-3580, January 2001.

Developing Metrics for DoD's Transformation, Joel B. Resnick, IDA Document D-2528, October 2000.

Seminars and Workshop

Workshop on Advanced Technologies for Urban Operations, November 14-15, 2000: Summary of Proceedings, William J. Hurley, IDA Document D-2574, June 2001. For Official Use Only.

Joint Advanced Warfare Seminar, James H. Kurtz, Daniel E. Moore, and Joel B. Resnick, IDA Document D-2346, July 1999.

Workshop on Advanced Technologies and Future Joint Warfighting, April 8–10, 1999: Summary of Proceedings, William J. Hurley, Phillip Gould, and Nancy P. Licato, IDA Document D-2343, May 1999.

General

FY2001 End of Year Report, Theodore S. Gold et al., multi-volume set, forthcoming, December 2001.

FY2000 End of Year Report: Volumes I, II, and III, Theodore S. Gold et al., IDA Paper P-3571, November 2000.

Preface

This paper was prepared under the task order Joint Advanced Warfighting Program (JAWP). The primary sponsor was the Assistant Secretary of Defense for Strategy and Threat Reduction. It addresses the task order objective of generating advanced joint operational concepts and joint experimentation to assist the Department of Defense in transforming U.S. military capabilities.

The author acknowledges the invaluable contributions provided by:

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Mr. Karl Lowe	Mr. Dennis J. Gleeson, Jr.
Mr. Joel Resnick	Mr. Jim Kurtz
Dr. Williamson "Wick" Murray	Ms. Katydean Price

The JAWP was established at the Institute for Defense Analyses (IDA) by the Office of the Secretary of Defense and the Joint Staff to serve as a catalyst for stimulating innovation and breakthrough change. The JAWP Team is composed of military personnel on joint assignments from each Service as well as civilian analysts from IDA. The JAWP is located principally in Alexandria, Virginia, and includes an office in Norfolk, Virginia, that facilitates coordination with the United States Joint Forces Command.

This paper does not necessarily reflect the views of IDA or the sponsors of the JAWP. Our intent is to stimulate ideas, discussion, and, ultimately, the discovery and innovation that must fuel successful transformation.

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Executive Summary

The Joint Advanced Warfighting Program (JAWP) at the Institute for Defense Analyses has been involved since its inception in large- and small-scale joint experiments. One issue always sparking interest and concern to participants—no matter what size the experiment—is the command and control of joint forces.

In 1999, the JAWP began development of an operational concept for a Joint Strike Force. Redesigning an operational-level headquarters for a joint task force (JTF) was part of this effort and is the subject of this paper.

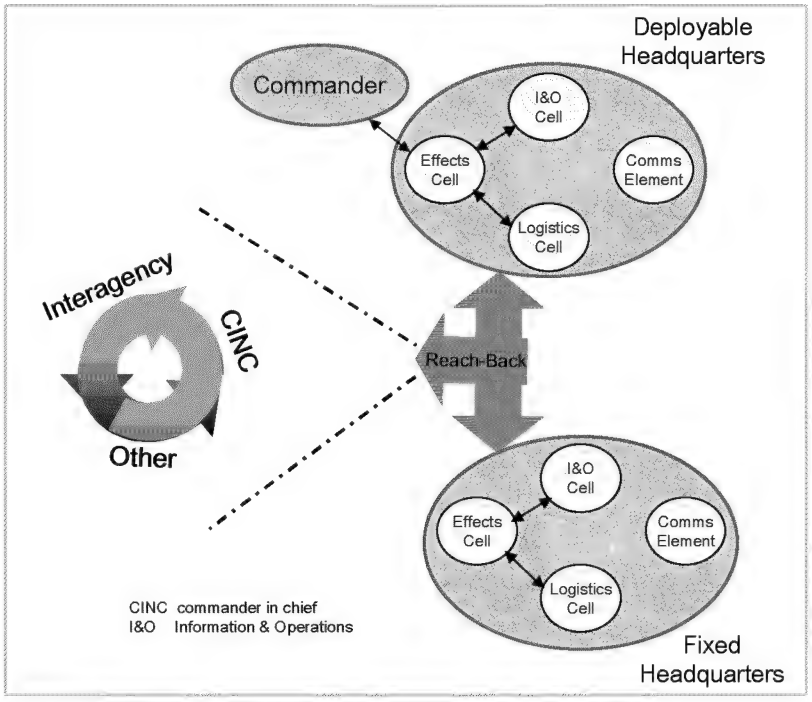
The Joint Strike Force Concept Development Team reviewed many source documents and incorporated their own experiences and professional military judgment. The team had the assistance and input of the Systems Engineering Department at the US Military Academy as well as subject matter experts in command and control. The effort also involved examining a number of recent JTFs, and the form and composition of current JTF headquarters alternatives, among them:

- an *ad hoc* headquarters formed from various sources;
- a JTF headquarters formed around the nucleus of a Service-only headquarters (augmented with representatives from the unified command headquarters and other Services), and
- a standing JTF headquarters.

Each alternative has advantages and disadvantages regarding training, interoperability, mission effectiveness and redundancy, and the ability to capture and profit from "lessons learned."

The Joint Strike Force Concept Development Team also identified three different approaches to the headquarters design: a hierarchical organization, a nodal organization, and a Heretic Model. All three contributed to a future joint force headquarters (JFHQ) model. The primary objective of this model is to improve the decision-making capabilities of the JTF commander and his staff. It is functionally designed around the flow of information, a network-centric design that takes advantage of information technologies

to make quicker and better informed decisions. In fact, today's information technologies already allow the future JFHQ to conduct *split-based operations* using a Fixed Headquarters echelon, a Deployable Headquarters echelon, and reach-back technologies such as secure communications, collaborative planning tools, and video teleconference. Figure ES–1 depicts the future JFHQ model and its cells.



ES–1. The Future JFHQ Model

Because it is not a large, forward-deployed headquarters, the future JFHQ reduces sustainment and force protection requirements in the theater, and frees critical mobility assets to better support operational needs.

To adequately prepare for contingencies where rapid response is essential, the Department of Defense must establish joint command and control capable of deploying quickly and operating with full effectiveness upon arrival. In preparation for such an effort, this paper recommends the following steps:

- perform a front-end analysis to validate the future JFHQ design;
- perform a functional analysis of the various command-level tasks (strategic, operational, and tactical) to redefine responsibilities at the various levels of command within the Fixed and Deployable Headquarters;

- integrate certain planning functions that have historically been performed by Service or functional component commands into the future JFHQ; and

- define the roles (planning and execution) and relationships between the Fixed and Deployable Headquarters, internally to themselves, and with others. Table ES–1 depicts an overview of these relationships and functions.

Table ES–1. Future JFHQ Echelons and Relationships

Relationships	**Fixed Headquarters** **Deputy JTF commander** **Focus:** Planning	**Deployable Headquarters** **JTF commander** **Focus:** Synchronization and execution of current plans. In-stride planning to leverage opportunities
CINC	Co-located with the CINC	Reaches back to the CINC
CINC's staff	Co-located with the CINC's Staff	Reaches back for staff assistance
CINC's Service components	Coordinates force and support needs	N/A
JTF-level component commands	JTF-level components do not exist; their planning functions are integrated into the JFHQ	N/A
JTF subordinate commands	Assists with the planning and coordination of Integrated Operational Campaign Plans	Synchronizes execution of plans. Conducts in-stride planning and re-directs actions as necessary
Supporting commands and agencies	Reach-back to centers of excellence	Close coordination with allies and coalition partners

Future Joint Force Headquarters

1. Introduction

1.1 Background and Purpose

Future U.S. military operations will likely be characterized by the integrated and simultaneous application of fire, maneuver, and information operations throughout a nonlinear battlespace to achieve both direct and indirect effects. These activities will be synchronized through a robust and distributed command and control network operated by a small, rapidly deployable operational-level headquarters. The joint task force (JTF) continues to be the organization of choice to integrate the capabilities of joint air, land, sea, space, and special operations forces, but the methodologies used to establish a JTF and form a JTF headquarters today are inadequate to meet command and control challenges of the twenty-first century.

Since its establishment, the Joint Advanced Warfighting Program (JAWP) at the Institute for Defense Analyses has been involved in a number of large- and small-scale joint experiments. Regardless of the scale or scope of these experiments, a common theme has been the command and control of joint forces at the operational level. This paper documents one aspect of a larger effort to develop an operational concept for a new kind of joint task force capability, the Joint Strike Force.[1] Redesigning an operational-level headquarters was part of that effort, and the result, a concept for a future joint force headquarters (JFHQ), is the subject of this paper.

The purpose of this paper is three-fold:

- to address the ability of JTF headquarters as currently constituted to effectively command and control joint forces in the twenty-first century,
- to identify on-going joint command and control activities, and
- to propose an alternative approach for the organizational design and employment of joint force headquarters.

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[1] For a complete description of the Joint Strike Force, see Rick Lynch et al., *Joint Strike Force Operational Concept*, Joint Advanced Warfighting Program, IDA Paper P-3578, July 2001, For Official Use Only.

The future JFHQ will provide a logical, cost-effective alternative to today's JTF headquarters models, and will meet the needs of the future joint force commander. The concept envisions a standing, regionally focused, operational-level joint headquarters for each geographic combatant command, which will provide the commander in chief (CINC) with a trained and ready operational-level headquarters that he can control and continue to train.

The JFHQ is functionally designed around the flow of information. This network-centric design takes advantage of information technologies to make quicker and better-informed decisions to better enable the joint force to achieve "decision superiority." These same information technologies enable split-based operations, using a Fixed Headquarters, a Deployable Headquarters, and reach-back technologies (e.g., secure communications, collaborative planning tools, video teleconferences). This approach frees critical mobility assets to better support operational needs, reduces the sustainment required to support a large forward-deployed headquarters, and reduces force protection requirements in the theater. The improvements suggested by the future JFHQ are promising, but the concept has its own set of challenges, among them personnel staffing. To adequately prepare for the regional threats projected in the next two decades, it is time for the Department of Defense (DoD) to examine, experiment with, and implement improved command and control capabilities for joint forces.

1.2 Approach and Scope

In developing an alternative design for the future JFHQ, the Joint Strike Force Concept Development Team:

- examined the many source documents that have consistently identified a need to improve operational-level command and control;
- used the findings from a separate headquarters design effort for the Joint Strike Force Operational Concept;
- included information emerging from related activities by the Services and combatant commands; and
- incorporated the experience and judgment of the military professionals who served on the team.

1.3 Audience

This paper is intended for those interested in the command and control of joint forces in the twenty-first century. The ideas expressed have far-reaching implications for a number of DoD components, including the Office of the Secretary of Defense, the Joint Staff, unified combatant commands, and the Services. It should be of particular interest to ongoing joint command and control initiatives, including Joint Forces Command's Experimental Joint Force Headquarters and the Joint Staff/J-3's Joint Warfighting Capability Assessment of Joint Task Force Command and Control.

1.4 Organization of This Paper

Chapter 1 provides the background, scope, and purpose of this document. Chapter 2 describes today's joint task force models, how a joint task force is established and staffed, and some of the issues associated with command and control at the operational level. Chapter 3 briefly describes the Joint Strike Force Operational Concept that served as the basis for this future JFHQ design. Chapter 4 discusses the design process that went into the future JFHQ. Chapter 5 describes a "way ahead" for validating the JFHQ design and moving toward its realization in fielded capabilities. A bibliography and a list of acronyms and abbreviations are given at the end of the paper.

2. Today's Joint Task Forces

2.1 Overview

JTFs can trace their roots back nearly seven decades:

> ... in 1935 the Joint Board (forerunner to the Joint Chiefs of Staff) published the *Joint Action of the Army and Navy* (JAAN), mandating that one commander would be responsible for joining forces from the Services into a joint task force (JTF). Command would be vested in an officer from the Service with the paramount interest in the mission and he would assign missions and objectives to component commanders and exercise coordinating control in a given operation.[2]

Surprisingly little has changed since 1935. JTFs continue to be indispensable in commanding and controlling joint forces, and have become the "headquarters of choice" for commanding and controlling joint forces in operations characterized as *short of major theater wars*. They have been used for a number of purposes, both overseas and in the continental United States (CONUS). Table 1 (below) lists some recent examples.

Table 1. US Joint Task Forces (Examples)[3]

Overseas	
Humanitarian assistance/disaster relief	
• Famine relief in Somalia, Rwanda	• Refugee support in Albania and Macedonia
• Hurricane relief in Honduras	• JTF Sea Angel – hurricane relief in Bangladesh
• Medical care in El Salvador	• Combined Task Force Provide Comfort – refugee support in Turkey
Combat operations	
• JTF-Grenada	• JTF-Noble Anvil – Kosovo
• JTF-South – Panama	

Continues on the next page.

[2] Thomas C. Linn, "Joint Operations: The Marine Perspective," in *Joint Forces Quarterly*, Winter 1995–1996, pp. 16–18.

[3] Stewart, George, Scott M. Fabbri, and Adam B. Siegel, *JTF Operations Since 1983*, Center for Naval Analyses, Alexandria, Virginia, July 1994, pp. 23–183.

Table 1. US Joint Task Forces (Examples) (Continued)

Overseas (continued)
Peacekeeping/enforcement operations
• JTF-Haiti • JTF-SWA[4] Iraq and Kuwait • JTF-Somalia • JTF-Eagle – Bosnia • JTF-Falcon – Kosovo
Theater engagement
• JTF-Bravo – Honduras • JTF-Southwest Asia – Kuwait • Southern/Northern Watch
CONUS
Consequence management
• JTF-Civil Support
Counter-drug operations
• JTF-6 (actually a Joint Inter-Agency Task Force)
Other
Prisoner of War/Missing in Action status resolution
• JTF-Full Accounting (based in Hawaii with its area of operations extending into Southeast Asia)

The Chairman of the Joint Chiefs of Staff published *Joint Vision 2010* in 1996 to provide the conceptual template for how U.S. forces will fight in the twenty-first century. The Chairman recognized that the joint force, because of its flexibility and responsiveness, would remain the key to operational success in the future. He then identified a number of critical considerations, one of which was organizational agility:

> In order to make optimum use of the technologies and operational concepts, we must carefully examine the traditional criteria governing span of control and organizational layers for the Services, commands and Defense agencies.[5]

The follow-on *Joint Vision 2020*, published in 2000, reinforced the significance of joint command and control:

---

[4] Southwest Asia.

[5] Chairman, Joint Chiefs of Staff, *Joint Vision 2010*, Joint Chiefs of Staff, Washington, DC, p. 31.

> In the joint force of the future, command and control will remain the primary integrating and coordinating function for operational capabilities and the Service components. As the nature of military operations evolves, there is a need to evaluate continually the nature of command and control organizations, mechanisms, systems and tools.[6]

Joint Vision 2020 also presented *decision superiority* as the new "gold standard" for gauging the joint force's ability to achieve and exploit information superiority:

> Information superiority provides the joint force a competitive advantage only when it is effectively translated into superior knowledge and decisions. The joint force must be able to take advantage of superior information converted to superior knowledge to achieve "decision superiority"—better decisions arrive at and implemented faster than an opponent can react.[7]

Finally, *Joint Vision 2020* made explicit the linkage between decision superiority and joint command and control:

> Command and control is most effective when decision superiority exists. Decision superiority results from superior information filtered through the commander's experience, knowledge, training, and judgment; the expertise of supporting staffs and other organizations; and the efficiency of associated processes.[8]

If the expertise of his supporting staff and the efficiency of associated processes are key to a joint force commander's ability to achieve decision superiority, it follows that the way the staff is organized and associated processes are designed is a major determinant of the effectiveness of joint command and control. The objective of any headquarters design effort should therefore be to enhance the joint force commander's ability to make superior decisions.

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6 Chairman, Joint Chiefs of Staff, *Joint Vision 2020*, p. 31–32.

7 *Joint Vision 2020,* p. 8.

8 *Joint Vision 2020,* p. 31.

2.2 Establishing a JTF

A JTF is typically formed in response to a crisis or conflict. Joint doctrine[9] identifies who has the authority to establish a JTF, when one should be established and how, and when to dissolve it.

> A JTF establishing authority may be the Secretary of Defense or the commander of a combatant command, subordinate unified command, or existing JTF. In most situations, the JTF establishing authority will be a combatant commander.
>
> JTFs may take many forms and be employed across the range of military operations in air, land, or maritime environments. The specific organization and staffing of a JTF will vary based on the mission assigned, the environment within which operations must be conducted, the makeup of existing and potential enemy forces, and the time available to reach the desired end state.
>
> Normally, a JTF is dissolved by the proper authority when the purpose for which it was created has been achieved or when it is no longer required.

2.3 JTF Headquarters Staff Organization

As the establishing authority considers the need for a joint task force, it also evaluates which type of JTF headquarters would be suitable (or available) to the scope of the mission. Joint doctrine does not mandate or even identify a preferred form for a joint task force. Instead, it merely identifies three alternatives to the form and composition of the JTF headquarters staff. In order of the resources they require and their degree of permanence, they are:

- form an *ad hoc* JTF headquarters from various contributors;
- augment a core Service component headquarters with representatives from the CINC's staff and other Service headquarters; and
- use a standing JTF headquarters.[10]

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[9] Joint Chiefs of Staff, *Joint Task Force Planning Guidance and Procedures*, Joint Publications 5.00-2, January 13, 1999, pp. I–1, I-3.

[10] Joint Pub 5-00.2, p. II-2

Each alternative has its own advantages and disadvantages, which are discussed in the following sections.

2.3.1 Ad Hoc JTF Headquarters

The term "ad hoc" describes the bringing together of a variety of Service-based capabilities, with a "kludged" joint headquarters to accomplish specific objectives. *Ad hoc* headquarters encompass the current approach to JTF headquarters staffing. Headquarters are formed and staffed as a crisis develops, and then stood down following resolution of the crisis.

The personnel assigned to these *ad hoc* headquarters have no opportunity to train and work together before a crisis, thus limiting the ability of the commander and staff to develop the habitual relationships that are important to efficient and effective staff work.

Kosovo: JTF–Noble Anvil. Operation Allied Force, executed over and around Kosovo in 1999, demonstrates the deficiencies of the current *ad hoc* arrangements. The JTF commander, Admiral James O. Ellis, identified several issues associated with the activation of JTF–Noble Anvil, including the fact that the JTF was formed as an *ad hoc* headquarters from various sources and not trained as a team before its being committed. Admiral Ellis recommended that the U.S. military plan for fully functional JTF and component staffs, and also develop JTF staff an augmentee database and training program.[11]

Iran: Operation Eagle Claw. Another example is the failed 1980 attempt to rescue American hostages in Iran, Operation Eagle Claw. Among the findings from the Holloway Investigation[12] was that the *ad hoc* command and control system was flawed.[13]

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[11] James O. Ellis, *A View from the Top*, spring 1999. Admiral Ellis served as the CINC, US Naval Forces Europe, Commander, Allied Forces Southern Europe, and Commander, Joint Task Force–Noble Anvil during Operation Allied Force, NATO's operation in Kosovo in 1999. In a briefing that was widely circulated over the Internet, Admiral Ellis offered his unique perspective on Kosovo and what could be the next joint fight.

[12] Admiral James L. Holloway III led a Pentagon-appointed panel of three retired and three serving Flag Officers (representing all Services) that investigated Operation Eagle Claw.

[13] LTC Patrick O. Carpenter, *The Decisive Edge: SETAF as a Standing JTF*, Naval War College, May 15, 1999.

Grenada: Operation Urgent Fury. Operations in Grenada further underscored the challenges of *ad hoc* JTFs. According to the official history of the operation,

> An adequate JTF organization did not exist in the Caribbean so USCINCLANT [Commander in Chief, Atlantic Command] chose Second Fleet to serve as the JTF headquarters. Second Fleet headquarters was a naval staff with little or no experience in planning and commanding large ground operations. [Chairman of the Joint Chiefs of Staff General] Vessey sent Major General Schwarzkopf to advise the fleet commander and to insure coordination of ground operations. Because of incompatible radios, Navy ships within sight of Rangers and airborne troops could not initially receive or respond to their requests for fire support. On two occasions, when Navy jets did respond, they attacked the wrong targets.[14]

2.3.2 Service-Based JTF Headquarters

A Service-based JTF headquarters is formed around the nucleus of a standing headquarters (Army Corps, Navy Carrier Battle Group, Numbered Air Force, Marine Expeditionary Force). To this Service-only headquarters is added a headquarters augmentation cell, akin to US Pacific Command's Deployable Joint Task Force Augmentation Cell (DJTFAC). Central, European and Southern Commands all use some form of a deployable joint planning augmentation cell.

The DJTFAC is a specially trained joint planning cell drawn from the CINC's staff that can be activated and deployed within 48 hours of notification. It is used to augment the joint planning capability of the designated Service headquarters and assist with transition of the planning process from the CINC's strategic level to the JTF's operational level. It is designed to form the nucleus of the JTF planning section.

USCINCPAC Joint Mission Force. An example of this type of JTF is the Pacific Command's joint mission force concept. The CINC has designated three Service headquarters—the US Navy's 7th Fleet, the US Marine Corps' III Marine Expeditionary Force, and the US Army's I Corps—as "primary" JTF headquarters and focused their planning on a set of missions below the level of major theater warfare. The CINC has also designated "ready forces" to make up the Service and functional components of

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[14] Ronald H. Cole, *OPERATION URGENT FURY, The Planning and Execution of Operations in Grenada, 12 Oct – 2 Nov 1983*, Joint History Office, Office of the Chairman of the Joint Chiefs of Staff, Washington, DC, p. 14.

mission-tailored JTFs. If a JTF headquarters with 7th Fleet as its headquarters were to be activated, the following scenario could occur:

- USCINCPAC would immediately dispatch its DJTFAC to the 7th Fleet Headquarters.
- Members of the other Service component headquarters, allied liaison officers, intelligence agencies, and/or other civilian agencies would augment the 7th Fleet staff.
- The 7th Fleet commander, now the JTF commander, would then control the execution of joint operations until completion of the mission.
- The JTF headquarters would then be dissolved. The DJTFAC and other augmentees would return to their normal duties.

This approach is an improvement over the *ad hoc* headquarters and provides a JTF command and control capability with lesser resource implications than a standing JTF headquarters. However, augmented headquarters remain Service entities that acquire only a thin layer of jointness because the commander and the majority of the staff, even after augmentation, come from a single Service. Relationships of trust and confidence honed year-round between a commander and staff principals will endure in a crisis, making it hard for an outsider to assume a principal staff role and exert similar influence.

2.3.3 Standing JTF Headquarters

The standing JTF headquarters enables the assigned commander and staff to develop the horizontal and vertical habitual relationships necessary to achieve decision superiority and successfully command and control military operations. Two examples were considered in developing the future JFHQ design: the US Marine Corps Standing JTF and the British Joint Force Headquarters,.

US Marine Corps Standing JTF. One of the first attempts at a standing JTF headquarters occurred between 1995 and 1998 when the US Marine Corps established a Standing JTF. This was in response to one of the Corps' emerging concepts that stated the Marine Corps must be capable of providing a fully capable expeditionary JTF headquarters, organized and equipped to move out on a moment's notice. The Standing JTF demonstrated its merit by developing procedures for command and control of operational-

level forces. Despite its success, the Standing JTF was met with skepticism and was not embraced by the other Services. Without the support of DoD and the joint community, the Marine Corps could not afford to sustain its Standing JTF, and it was disestablished on October 1, 1998.[15]

British Joint Force Headquarters. The British created their own version of a standing JTF headquarters, the Joint Force Headquarters, whose core staff is trained and prepared to deploy on a moment's notice. Unlike the US Marine Corps version, the Joint Force Headquarters staff still exists as a trained and ready staff that is employed today in current operations. It is fully manned and supported by all branches of the British Armed Forces.

2.4 Issues with Current Alternatives

Many believe that the transient and *ad hoc* nature of traditional JTFs represents a serious impediment to the effective command and control of joint forces, particularly as military operations are made more urgent by the proliferation of dangerous new capabilities and the unrelenting glare of media coverage. Numerous studies have been conducted and papers written on the benefit of creating permanent JTF headquarters.[16]

Though *ad hoc* JTFs have managed to accomplish their tasks in the past, they are a less-than-optimum solution for the contingencies we face today and tomorrow. Current planning guidance and procedures are not adequate for training, commanding, and controlling a joint force ready to wage operational campaigns in the twenty-first century.

A review of past and ongoing efforts discloses a number of major issues centering on training, interoperability, mission effectiveness and redundancy, and lessons learned.

- **Training.** When a JTF headquarters does not exist as a permanent organization, training prior to its activation and employment is marginal at best, re-

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[15] Mark T. Goodman and Richard M. Scott, Standing Joint Task Force: Opportunity Lost, *Marine Corps Gazette*, September 1998. p. 38–39.

[16] MAJ James Hanley, *USAF: JTF Staffs: Permanent or Temporary Level of Command*, USACGSC-SAMS, May 1996. MAJ Marc Hildenbrand, USA, *Standing Joint Task Forces—A Way to Enhance America's Warfighting Capabilities?*, USACGSC-SAMS, June 24, 1992. CDR Bradley Johanson, USN, *Staffing the Joint Task Force, an Opportunity for Team Building*, Naval War College, June 16, 1995. LCDR Karl Van Deusen, USN, *Joint Vision 2010 Command and Control: A Case for Standing Joint Task Forces and Purple Aircraft Carriers*, Naval War College, February 1998. LTC Harry Scott, USA, *Joint Task Force Headquarters—Time for Permanency*, USAWC, February 1997. MAJ Michael Firlie, USA, NATO Standing Combined Joint Task Forces, *Joint Forces Quarterly*, Autumn/Winter 1999–2000.

gardless of the experience of its members. Even the most junior of military leaders can explain the benefits of having the members of his unit present for duty and available for training every day. They train as a team and develop habitual relationships that enable the organization to capitalize on the collective strengths of all its members. In such an environment, a leader can ensure that the members of his organization are trained to execute their technical and tactical responsibilities, both as individuals and as part of the team.

- **Interoperability.** Because JTF headquarters are created on demand, they do not have their own command and control systems, organizational structure, or procedures.[17] There is no standard command and control system for the JTF commander and staff to operate or for subordinate elements to plug into. The resulting lack of interoperability is a major factor in determining command and control relationships.[18] In addition, standing operating procedures may differ from one theater to the next, and are often based on the assumption that a particular force will be designated as the JTF headquarters.

- **Mission effectiveness and redundancy.** Members of an *ad hoc* JTF staff usually have only a limited understanding about the capabilities of other Services. In their current configuration, JTF headquarters staffs built by augmenting a Service headquarters remain Service-centric and over-reliant on their own core Service component capabilities.

- **Lessons learned.** Because they are not permanent, JTFs are unable to adequately capture, much less profit from, any lessons learned. The same mistakes are repeated as each subsequent JTF is established and operational proficiency is gained.

The next chapter describes the Joint Strike Force Operational Concept that served as the basis for the future JFHQ.

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[17] D. Robert Worley, *Challenges to Train, Organize, and Equip the Complete Combined Arms Team: The Joint Task Force*, IDA Paper P-3431, Institute for Defense Analyses, Alexandria, VA, September 1998.

[18] While Joint Publication 5-00.2, *Joint Task Force Planning Guidance and Procedures,* provides an example of a typical JTF organization, no two JTFs are alike, thus further compounding command relationships.

3. Joint Strike Force Operational Concept

In the autumn of 1999, the JAWP was asked by the Office of the Secretary of Defense to develop an operational concept for a Joint Strike Force, which the sponsoring office envisioned as being:

- a rapidly deployable joint force capable of achieving national military objectives in small-scale contingencies;
- the integrated and simultaneous application of full-spectrum capabilities applied throughout a non-linear battlespace, achieving both direct and indirect effects; and
- commanded and controlled through a robust and distributed command and control network that operates through a small and rapidly deployable operational-level headquarters.

The Concept Development Team further identified the following characteristics as being desirable in a Joint Strike Force:

- The Joint Strike Force would enable a geographic CINC to provide the National Command Authorities with the means to respond rapidly (24 to 96 hours) to upper-level, small-scale contingencies, and sustain themselves for a limited duration (approximately 30 days).
- Joint Strike Force operations would be phased in such a way as to appear to the adversary as a continuous application of combat power—simultaneously and in all dimensions. The Joint Strike Force would use situational awareness and understanding to strike, deliberately and dynamically, the enemy's key capabilities and decisive points.
- The nodes in the various networks that constitute the adversary's power base would be targeted. At the same time, the Joint Strike Force would protect and preserve its own physical and virtual networks, and the intangible networks among people that enable combat effectiveness. The application of

kinetic and non-kinetic strikes[19] would focus on leaving the adversary with less-than-favorable courses of action, thus compelling him to comply with U.S. demands and international law or else face escalated military conflict on terms not of his choosing.

- If a conflict were to escalate beyond the capability of the Joint Strike Force, its mission would be to facilitate the arrival of follow-on joint forces.

- Upon resolution of the conflict, the Joint Strike Force would facilitate the situational understanding and arrival of follow-on peacekeeping forces and/or non-governmental organizations.

- Following the transfer of responsibility to follow-on forces, the Joint Strike Force would redeploy out of the area of operations, reconstitute itself, and resume its peacetime planning, training, and CINC-directed engagement activities.

The joint operational-level headquarters (the Future Joint Task Force Headquarter Model that emerged from the Joint Strike Force) is more than a standing headquarters—it is also a functional redesign, different from existing JTF headquarters. *The sole purpose of the Future Joint Strike Force Headquarter Model is to improve processes to achieve decision superiority.*

In the course of its analysis and experimentation, the Joint Strike Force Concept Development Team developed an organization similar to a JTF, consisting of a standing operational-level joint headquarters assigned to the each of the geographic CINCs.[20] The Joint Strike Force headquarters design effort focused on three tenets:

- Each geographic CINC would have a standing Joint Strike Force assigned to his command.

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[19] For the purposes of this paper, *kinetic means* will include options such as air- and sea-launched munitions, direct and indirect fires, and the use of ground forces and special operations forces. *Non-kinetic means* will include options such as information operations, psychological operations, and electronic warfare. *Non-lethal weapons* are included in either one category or the other, depending on their characteristics. It should be noted that the examples listed represent only a small segment of possible options.

[20] A complete description of the Joint Strike Force is contained in Rick Lynch et al., *Joint Strike Force Operational Concept*, Joint Advanced Warfighting Program, IDA Paper P-3578, July 2001, For Official Use Only.

- The standing Joint Strike Force headquarters would be designed differently from the JTF headquarters in use today.

- One Joint Strike Force would be *aligned* with each geographic CINC, meaning that its forces would be immediately available for employment by the CINC regardless of where individual elements might be located. The forces would be *synchronized* in their training and readiness cycles and made available to the CINC on a rotational or cyclic basis.[21]

The result of the Joint Strike Force headquarters design effort was the creation of a joint operational-level headquarters organization that could best be characterized as a networked, functionally organized headquarters consisting of two elements (a Fixed Headquarters and a Deployable Headquarters) that together collaboratively plan and execute joint integrated operational campaign plans. Enhanced by reach-back, the Joint Strike Force headquarters would plan and execute detailed operation plans in collaboration with the unified command headquarters, the CINC's Service components, subordinate force headquarters, interagency partners, national centers of excellence, and allies and/or coalition partners.

The next chapter discusses the actual design of the JFHQ, a refinement of the Joint Strike Force headquarters design. The JFHQ design also reflects lessons learned following the cessation of work on the Joint Strike Force Operational Concept.

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[21] Exactly what "aligned" and "synchronized" mean in more familiar terms such as "assigned," "apportioned," and "allocated" requires further study and analysis. The Joint Strike Force Operational Concept envisions training the commanders and staffs of the organizations involved to function as teams, sharing the experience of supporting and enabling each other in wargames and exercises during both the preparatory and high readiness phases of their readiness cycle.

4. Design and Functions of the JFHQ

4.1 Improving JTF Effectiveness

The operational effectiveness of a JTF varies over time. Figure 1 below portrays the relative effectiveness of today's JTF headquarters (2000) as compared to that of a future JTF headquarters (2004–2007+). This S-Curve has been discussed in a number of forums, including those hosted by the Information Superiority Working Group, Joint Forces Command/J-9. It was used more formally and is discussed in detail in the Joint Mission Force white paper produced by USCINCPAC J-3/ Joint Experimentation.[22]

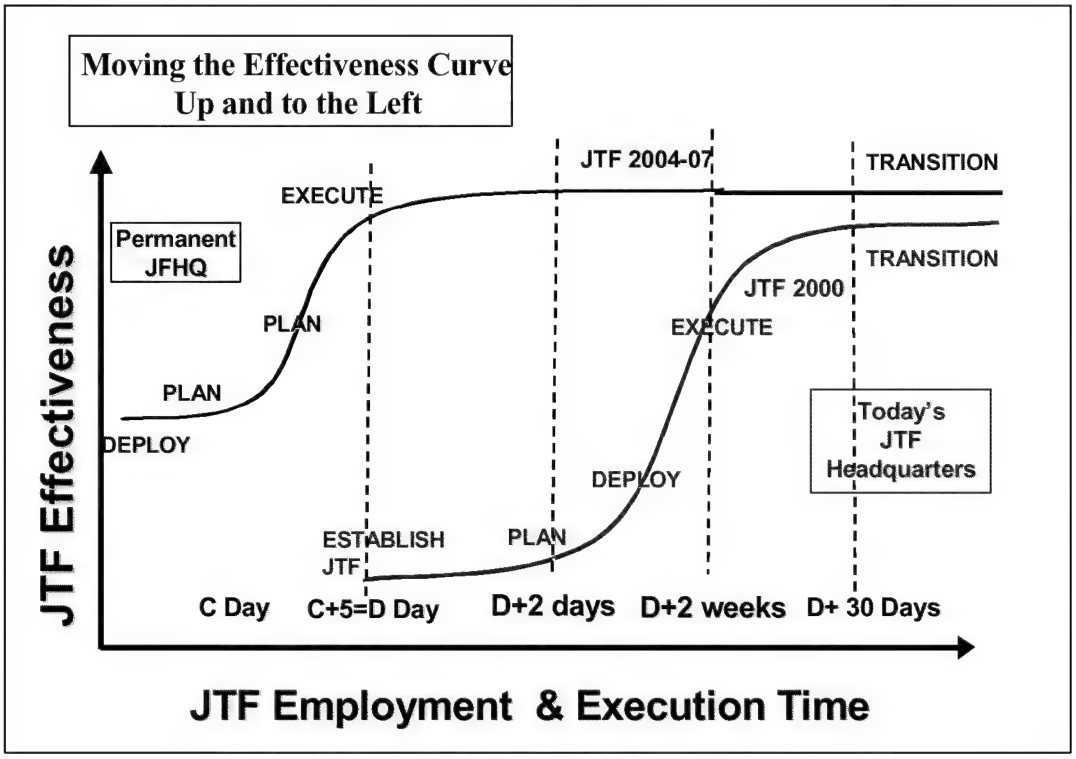


Figure 1. The S-Curve

[22] USCINCPAC J-3, *The Joint Mission Force, Transformation in the U.S. Pacific Command*, Joint Experimentation, February 2001, p. 5.

Notionally, the relative increase in effectiveness is determined by the degree to which changes in any combination of DOTMLPF (doctrine, organization, training, materiel, leader development, personnel, facilities) cause the S-Curve to move up and to the left. In comparing the 2000 curve to the 2004-07+ curve, we see that the JTF 2004–07 achieves greater effectiveness by virtue of a standing headquarters that performs pre-crisis planning and training, which in turn enables the JTF to deploy sooner and execute faster. It is also in a steady state of readiness that is significantly ahead of today's JTF alternatives.

Improving the effectiveness of the JTF headquarters is probably one of the more promising ways to improve the effectiveness of the JTF. A number of competing ideas describe methods for moving the S-Curve up and to the left. Unfortunately, most approaches simply nibble at the edges and achieve only slightly increased effectiveness.

4.2 Examining Other Command and Control Efforts

In parallel with the Joint Strike Force Operational Concept development effort were a number of related activities that also examined future joint force command and control issues, among them:

- **USCINCPAC's Joint Mission Force.** The US Pacific Command is developing the Joint Mission Force. The Joint Mission Force provides standard procedures for the manning, training, and employment of any one of three Service-based, pre-designated JTFs in the CINCPAC area of responsibility (AOR).

- **US Joint Forces Command.** The USJFCOM Experimentation Directorate (J-9) is experimenting with alternatives for a new joint headquarters that will also operate as the joint force headquarters during USJFCOM-sponsored joint experiments.

- **Systems Engineering Laboratory, US Military Academy.** The Systems Engineering Lab is developing alternative joint force headquarters designs as a follow-on to its work in support of the Joint Strike Force Operational Concept.

- **Joint Chiefs of Staff/J-3.** The Chairman of the Joint Chiefs of Staff selected JTF command and control as one of the Joint Warfighting Capability Assessment Strategic Topics for fiscal year 2001. This effort will first establish a baseline "as is" operational concept for JTF command and control

and then look at alternatives for a "to be" concept and operational architecture that will provide the capabilities needed for effective command and control of future joint forces.

4.3 Considering Alternative Headquarters Designs

The Joint Strike Force Concept Development Team considered three approaches to headquarters design: a hierarchical organization, a nodal organization, and a Heretic Model.

4.3.1 Hierarchical Organization

The hierarchical organization (depicted in Figure 2 at the bottom of this page) is the design most commonly used today and is familiar to most military professionals.

Separate staff functions are assigned to directorates (e.g., J-1, J-6) where each one works for the commander through a vertical reporting chain. Information and orders flow up and down the individual directorates, to and from the commander, with limited information flow laterally. Each directorate has its own set of tasks and functions; there is little overlap between groups. Individual actions are coordinated between directorates, but integration of staff activity occurs only at the top.

The tendency of this design for information to be "stovepiped" presents a significant challenge in light of the compressed planning cycles anticipated in future contingencies.

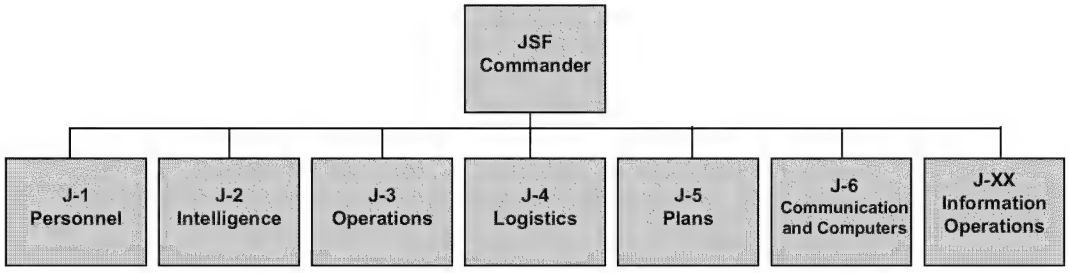
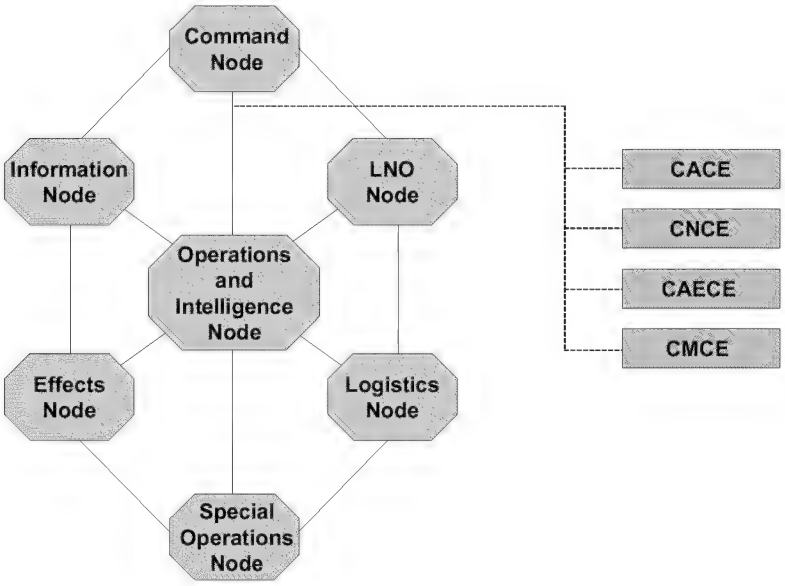


Figure 2. Hierarchical Organization

4.3.2 Nodal Organization

The nodal organization (Figure 3 below) was developed originally as part of the US Army's since-discontinued "Strike Force" effort. It is characterized by the organization of personnel into functional nodes (e.g., Operations and Intelligence, Effects, Logistics) that are given the responsibility and authority to coordinate laterally in a self-synchronizing fashion. Like the directorates in the hierarchical design, the functional nodes are assigned specific operational tasks. But instead of passing information up and down their individual staff channels, the node staffs can go directly to one another for coordination and information.

The Joint Strike Force Concept Development Team found the nodal headquarters to be divided into too many separate functions, which would hinder its ability to provide effective command and control and integrate the capabilities of joint forces conducting high-tempo operations. The team also found that the integration of non-military agencies and organizations would be a challenge for the nodal headquarters design.



CACE	Commander, Army Component Element
CMCE	Commander, Marine Corps Element
CNCE	Commander, Naval Component Element
CAECE	Commander, Aerial Expeditionary Component Element
LNO	Liaison Officer

Figure 3. Nodal Organization

4.3.3 Heretic Model

The heretic organization[23] was developed and described to the team by the former Commander in Chief, US Central Command, retired General Anthony C. Zinni, USMC. It organizes the headquarters staff into functional layers like concentric rings around the commander (Figure 4 below).

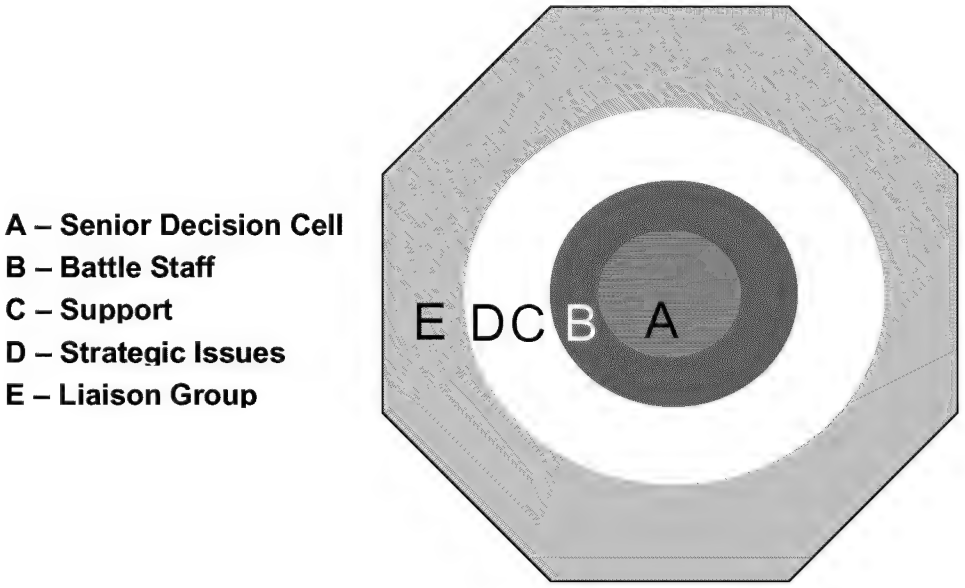


Figure 4. Heretic Model

Each layer coordinates within itself and provides information to the next inner or outer layer.

- The Senior Decision Cell (A) is closest to the commander, integrating staff actions and serving as his closest advisors.
- The Battle Staff layer (B) contains the staff functions that deal with current operations (Operations, Intelligence, Information, and Special Operations).
- The Support layer (C) contains logistics and other support functions.

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[23] General Zinni developed the Heretic Model when he commanded I Marine Expeditionary Force. His intent was to design a headquarters around functional relationships, describing the elements most important to the commander in battle command and those functions that cut across various elements within the staff.

- Future planning is done in the Strategic Issues layer (D).
- Liaison and component functions are performed in the outermost Liaison Group layer (E).

The perceived weakness of the Heretic Organization was that it retains traditional stovepipes (Intelligence, Operations, and Plans are still separate cells), and that information from outer layers does not have a direct input path to the commander or his senior decision-makers. In addition, integration of components and other non-military agencies and organizations is hampered by their relegation to liaison elements at the outermost layer.

4.4 Designing the Structure of the JFHQ

After considering each headquarters alternative, the Joint Strike Force Concept Development Team decided that a network-centric design would provide the most efficient organization for improved decision-making. Elements of the nodal and heretic alternatives also contributed to the design of the future JFHQ.

To assist with headquarters design, the team asked the Systems Engineering Department at the US Military Academy to help determine the basic command functions required to execute operational-level command and control; and to help elaborate the possible task-load relationship that might exist between elements of a distributed command center. The result was the model depicted in Figure 5 (right). The model shows the percentage of tasks that might best be performed in each of the elements of a distributed headquarters (labeled **Fixed** and **Deployable**).

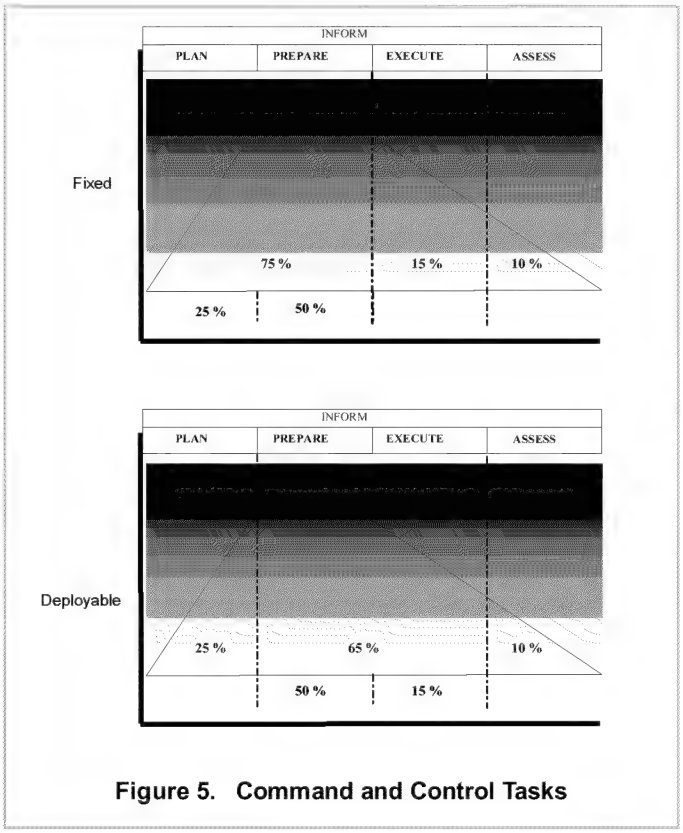


Figure 5. Command and Control Tasks

The Fixed Headquarters would focus primarily on *planning* and *preparing* while the Deployable Headquarters

would focus primarily on *preparing* and *executing*. During times of peace, the future JFHQ is a singular standing headquarters normally co-located with the CINC's headquarters, acting as an extension of the CINC's staff. It focuses on contingency planning for the "crisis of the day" as well as on training, with the staff, with subordinate staffs and/or forces, and with the forces of allies and potential coalition partners. During an actual contingency, the JFHQ splits into two headquarters echelons, the Fixed Headquarters and the Deployed Headquarters. The rationale for this split is:

- to increase survivability by dispersing elements of the headquarters;
- to increase the responsiveness of a JFHQ closing into the Joint Operations Area (JOA);
- to minimize the footprint forward, reducing the demands on mobility assets necessary to support headquarters sustainment; and
- to retain and enhance its ability to integrate allies and coalition partners.

As depicted in Figure 6 below, the Fixed and the Deployable Headquarters each have an Information and Operations (I&O) Cell, an Execution Cell, a Logistics Cell, and a Communications (Comms) Element. The division of labor between the Fixed Headquarters and the Deployed Headquarters, and the functions and interactions of their cells and the Communications Elements, are discussed in the next section.

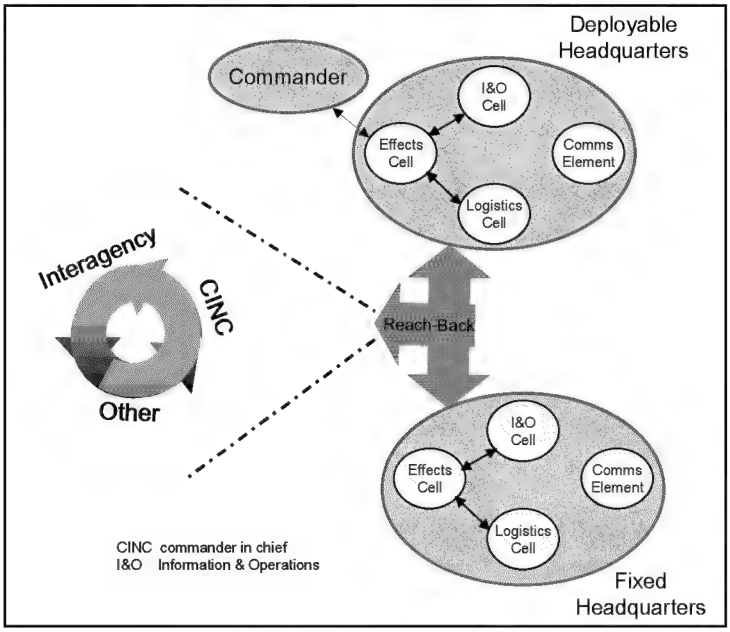


Figure 6. The JFHQ Model

4.4.1 The JFHQ Echelons

To help understand the overarching JFHQ concept, a "macro" view of the JFHQ echelons and their relationships with other key command nodes is depicted in Table 2.

Table 2. JFHQ Echelons

Relationships	Fixed Headquarters **Deputy Commander** **Focus:** Planning	Deployed Headquarters **Commander** **Focus:** Synchronization and execution of current plans. In-stride planning to leverage opportunities
CINC	Co-located with the CINC	Reaches back to the CINC
CINC's staff	Co-located with the CINC's Staff	Reaches back for staff assistance
CINC's Service components	Coordinates force and support needs	N/A
JTF-level component commands	JTF-level components do not exist; their planning functions are integrated into the JFHQ	N/A
JTF subordinate commands	Assists with the planning and coordination of Integrated Operational Campaign Plans	Synchronizes execution of plans. Conducts in-stride planning and re-directs actions as necessary
Supporting commands and agencies	Reach-back to centers of excellence	Close coordination with allies and coalition partners

4.4.2 The Execution Cell[24]

The Execution Cell performs the current operations duties of the JFHQ, with most of the functions performed in the Deployed Headquarters.

This cell will perform an active role in the command and control of JFHQ operations by monitoring the battlespace through the Common Relevant Operational Picture and the Common Tactical Picture. It will use adaptive command and control to dynamically re-task JFHQ forces so that they may achieve the desired operational objectives. When

[24] In the Joint Strike Force headquarters design, this was called the Effects Cell. The functions that this cell performs in the JFHQ design are inclusive of effects but have broader application, thus the name change.

necessary, the Execution Cell will direct changes to current plans, based on the situation, and leverage opportunities as they present themselves. A close relationship with the I&O Cell is required to ensure that future plans encompass and adequately address the anticipated operational environment. Table 3 lists the functions and interactions of the Execution Cell.

Table 3. Execution Cell

Fixed Execution Cell	Deployed Execution Cell
Translates higher HQs' orders and commander's intent into execution. Leads future planning. Coordinates movement of forces. Leads assessment efforts. Manages information operations. Participates in virtual boards.	Based on assessment of I&O Cell, rapidly provides the JTF commander with execution targeting alternatives. Monitors joint battlespace. Coordinates and de-conflicts activities. Participates in assessments. Refines branch and sequel plans and issues orders as appropriate. Dynamically re-tasks subordinate task forces to take advantage of opportunities.

4.4.3 The I&O Cell

The I&O Cell is the product of a merger of the Intelligence (J-2) and Operational (J-3 and J-5) functions into a single organization. This provides the JTF commander with a more holistic approach—emphasizing the importance of the whole and the interdependence of its parts—to planning and conducting operations. Information, whether produced internally or externally, serves as the foundation for planning *and* situational awareness and understanding.

The I&O Cell will support the JFHQ leadership in a variety of ways. It will assess and synthesize all-source intelligence, extract from it meaningful information, assist in the development of operational plans based on that information, and enable subordinate commanders to pursue dynamic operations against the adversary. Such a capability will be realized through habitual working relationships (internal and networked) and the application of information technology. Table 4 on the next page lists the functions and interactions of the I&O Cell.

Table 4. I&O Cell

Fixed I&O Cell	Deployed I&O Cell
Determines effects and develops supporting operational plans. Prepares and coordinates the Integrated Campaign Plan. Collects and analyzes intelligence from ISR and targeting assets. Issues orders. Conducts future planning. Conducts Red Teaming against friendly Courses of Actions. Assesses operational plans. Conducts battle damage assessment. Reports to the CINC's headquarters. Leads and participates in a number of virtual equivalents to Boards and Centers. Coordinates movement of forces with the Logistics Cell.	Participates in virtual boards. Conducts continuous assessment of local ISR (intelligence, surveillance, and reconnaissance) operations. Acts as a conduit between the JTF commander and the I&O Cell in the Fixed Echelon in conjunction with the Execution Cell. Focuses on the execution of current operations. Dynamically re-tasks collection assets in conjunction with the needs of the JTF commander.

4.4.4 The Logistics Cell

The JFHQ is designed to ensure logistics and operations are truly integrated parts of a whole that maximizes combat power, operational reach, and tempo of operations for the JTF commander. Command and control over deployment and logistics resources must be exercised under a joint structure that fits within the operational context of the JFHQ. Service and functional stovepipes must be integrated to increase responsiveness, flexibility, survivability, and efficiency.

The logistics command and control network will enable the JTF commander to have influence over the entire logistics pipeline, that is, from the CONUS-based or theater source of supply to the mobile combat service support elements that fill ground force requirements in the operations area. This will maximize the reach of the JTF and minimize the support footprint in theater by eliminating or reducing duplication of logistics efforts.

Logistics command and control will run from the theater Joint Theater Logistics Management (JTLM) organization to the Logistics Cell in the JFHQ Fixed Headquarters to the Logistics Cell in the JFHQ Deployed Headquarters to the support elements in the operations area. Table 5 lists the functions and interactions of the Logistics Cell.

Table 5. Logistics Cell

Fixed Logistics Cell	Deployed Logistics Cell
Performs logistical and sustainment planning. Coordinates movement of forces with I&O Cell. Coordinates factory-to-theater sustainment with CINC's Service components. Coordinates theater logistics and sustainment with JTLM organization and allies and/or coalition. Coordinates and directs logistics from theater and CONUS sources to the JOA.	Monitors the logistics status of subordinate commands. Directs changes to plans based on dynamic changes and shifting priorities. Coordinates with allies and/or coalition partners for host nation support. Provides continuous logistics assessment.

4.4.5 The Joint Communications Element

A Communications Element resides in both the Deployable Headquarters and the Fixed Headquarters. Its sole purpose is to provide assured and secure communications (both voice and digital) between the CINC and the JFHQ; the Deployable and Fixed Headquarters; the subordinate commands; and the JFHQ and other U.S. government agencies, allies/coalition partners, and non-government organizations and private voluntary organizations.

The Communications Element provides communications services similar to those currently provided to joint force commanders by the Joint Communications Support Element. The differences are:

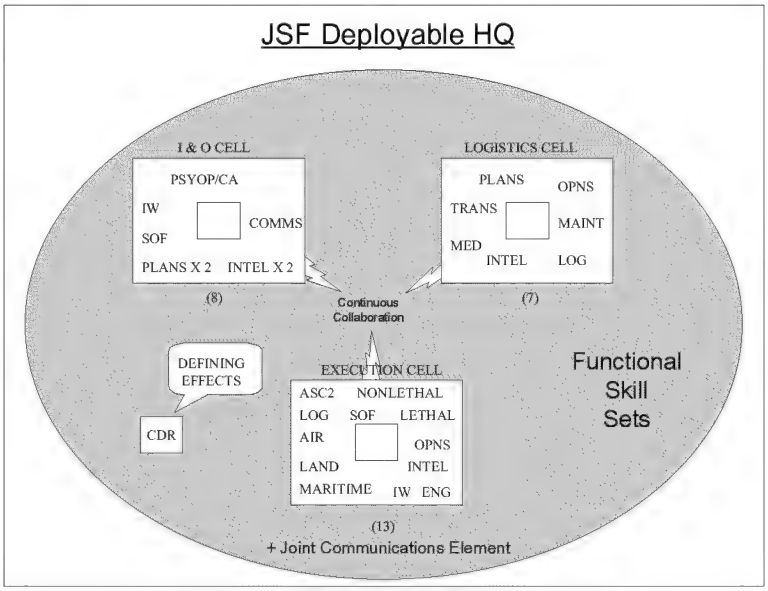
- that these capabilities reside with the JFHQ in the CINC's AOR, and
- that they provide standard AOR-based C4ISR[25] networks that subordinate forces, regardless of origin, "plug" into once they are activated for planning or upon arrival into the JOA.

The Communications Element addresses the historical communications interoperability problems associated with the stand-up of JTFs, and establishes the means for determining the needs for future "born joint" C4ISR systems.

[25] Command, control, communications, computers, intelligence, surveillance, and reconnaissance.

4.5 Determining the Functional Skill Sets

As depicted in Figure 7 below, various skill sets will be required to reside in the Execution Cell, I&O Cell, and Logistics Cell of the Deployable Headquarters.



AJC2	adaptive joint command and control	MED	medical
CDR	commander	OPNS	Operations
COMMS	communications	PSYOP/CA	Psychological Operations/Civil Affairs
ENG	engineers	SOF	Special Operations Force(s)
IW	information warfare	TRANS	transportation
LOG	logistics		

Figure 7. JFHQ Functional Skill Sets

The skill sets represented in this figure are not an agreed-upon solution but only examples. These particular skill sets were developed as a guide for manning the Blue Cell (operational-level joint headquarters) used during a wargame that supported development of the Joint Strike Force Operational Concept. They remain prime candidates for follow-on analysis. These particular skill sets were not determined by any analytical means; rather, they were determined based on the Concept Development Team's observations of a US Army wargame[26] with a similarly designed headquarters, a review of the opera-

[26] US Army's Interim Brigade Combat Team Exercise conducted at Ft. Leavenworth, KS, May 10–19, 2000.

tional-level tasks outlined in the Universal Joint Task List [27], and participation as staff members in the USMC Experimental Command Operations Center (ECOC).[28]

The Joint Strike Force Concept Development Team functionally aligned the operational-level tasks to the various cells within the Fixed Headquarters and the Deployable Headquarters. There is some deliberate duplication of skill sets—Special Operations Force (SOF), Logistics (LOG), and Intelligence (INTEL)—across the three cells to ensure redundancy in the event of catastrophic failure in any one cell and to achieve a network-centric environment.

The skill sets for the Fixed Headquarters would be similar in scope to those in the Deployable Headquarters but different in function (emphasizing planning versus execution) and in detail. Allowing the Fixed Headquarters to focus on planning enables the Deployed Headquarters to focus primarily on execution.

With the focus on planning rather than execution, the team found it necessary to decide on Fixed Headquarters staffing and functions to ensure the JTF commander has the right information at the right time to make the right decisions. Staffing numbers were based on an assumption regarding the percentage of planning and preparing functions (75%; see Figure 5 on page 24) performed in the Deployable Echelon; a review and reallocation of operational-level tasks published in the Universal Joint Task List[29], and an artificially imposed limit on the size[30] of the Deployable Echelon.

The functional skill sets previously shown previously in Figure 7 (page 30) represent an elementary approach to understand the staffing implications and the perceived interrelationships between the various cells. Further analysis is required in this very important area to determine functionality, organizational effectiveness, and staffing requirements.

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27 Chairman, Joint Chiefs of Staff, CJCSM 3500.04B, *Universal Joint Task List*, 1 October 1999.

28 The ECOC is a functionally aligned headquarters whose nucleus is a mission team consisting of a RSTA (Reconnaissance, Surveillance, & Target Acquisition) Coordinator, Intelligence Watch Officer, USMC Fires Officer, Air Officer, Naval Fires Officer, and Force Protection Officer. The Joint Strike Force concept development team observed the ECOC during a number of Limited Operational Experiments.

29 *Universal Joint Task List*, 1 October 1999, pp. B-31 – B-41.

30 The Joint Strike Force headquarters used organizational design ceilings on both echelons of the headquarters (50 Deployable and 300 Fixed) as a forcing function to (1) determine if a staff that size could conduct sustained operations and (2) to identify possible platforms for the Deployable Headquarters (airborne, sea based, or land based).

5. The Way Ahead

The future JFHQ represents a radically different headquarters design for joint warfighting. The design was influenced by information technologies and the capabilities that will provide the future JTF commander in making more timely and better-informed decisions. *The result is a networked headquarters that is functionally organized around the flow of information.*

The proposed design assumes that simply applying new technologies to existing organizations would not provide the improvements in command and control necessary to plan and conduct joint operations in the twenty-first century. Further exploration, study, analysis, and experimentation are required to refine and validate the proposed JFHQ command and control structure.

There are two specific areas requiring additional effort: a front-end functional analysis of both headquarters echelons (Fixed and Deployable) and the scope of responsibilities for each. These two areas are so closely related that they are best addressed as the singular command and control issue.

5.1 Front-End Analysis

A front-end functional analysis is the essential first step in validating the future JFHQ design. Failure to conduct this analysis puts the design and the whole command and control concept at risk. (Remember, the focus of the future JFHQ design is on a network-centric headquarters that is functionally designed around the flow of information.)

There are also a number of Board and Center functions habitually associated with JTF-like headquarters. These include the Joint Targeting Coordination Board, the Joint Search and Rescue Center, Joint Movement Center, Joint Operations Center, the Civil-Military Operations Center, and numerous others. A functional analysis of these Boards and Centers must also be conducted to determine how the functions historically carried out by these entities will be accomplished by the JFHQ.

5.2 Scope of Responsibilities

The future JFHQ will likely be responsible for exercising command and control of joint operational-level forces across a range of operations from humanitarian assistance to major theater war. The traditional lines between what have historically been described as

strategic, operational, and tactical tasks have become blurred. Therefore, a functional analysis of the various command-level tasks is necessary to redefine responsibilities within the two echelons (Deployable and Fixed) of the future JFHQ and within each cell of both echelons.

The Joint Strike Force Operational Concept envisioned that instead of relying on component commands (functional or Service) to plan and conduct operations, the Joint Strike Force headquarters would oversee the planning and management of combat operations. The Joint Strike Force headquarters will report directly to the combatant CINC.

The future JFHQ also advocates integrating into itself a number of planning functions that have historically been performed by the commanders of JTF component commands. This was done for two principal reasons:

- to speed decision-making by removing a subordinate level of command, and
- to help reduce the footprint forward.

This requires a functional analysis of component-level tasks that could be integrated in the JFHQ.

The Joint Forces Land Component Commander, the Joint Forces Maritime Component Commander, and the Joint Forces Air Component Commander do not exist in this concept. Instead, the functions normally performed by those organizations are either performed in the JFHQ or are "outsourced" to an organization or agency that is more capable of performing a given task or set of tasks. For example, Joint Forces Air Component Commander operational campaign planning and apportionment recommendations might occur in the JFHQ while the Air Expeditionary Force's higher headquarters, likely the Numbered Air Force, would perform Air Operations Center functions. This would ensure that the application of all air assets (Navy, Air Force, Marine Corps)[31] would be centrally commanded and controlled.

Also critical to the success of the JFHQ is its ability to conduct collaborative planning and execution in a *distributed environment*. Distributed operations include those actions that are accomplished by elements of both the Deployable and Fixed Headquarters

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[31] Excluding sorties apportioned to USMC-specific missions and force protection of the carrier battle group.

echelons with each other, with subordinate and higher headquarters, with national agencies, non-government organizations, private voluntary organizations, and coalition partners. Further analysis is required to clearly define the roles (planning and execution) and relationships between the Deployable and Fixed Headquarters echelons.

Additionally, it is necessary to analyze those functions that the JFHQ must perform (internally and with others—refer back to Figure 5 on page 24) that lend themselves to a collaborative and distributed environment.

5.3 Concluding Thoughts

This document has described how joint forces at the operational level are commanded and controlled today. It has also provided a number of historical JTF examples that illustrate why today's approach is less than optimal. It has addressed the authority for establishing a JTF, the organizational headquarters staffing alternatives currently available to the establishing authority, and the issues associated with these alternatives. The paper went on to briefly overview the Joint Strike Force Operational Concept, the original source for this particular headquarters redesign effort. Given all this as background, it then proposed in some detail an alternative joint operational-level headquarters called the future JFHQ.

When questioned as to why a command and control function is done a particular way, responses normally fall into two categories: (1) because we have always done it that way, or (2) to improve our command and control processes. The future JFHQ is designed to challenge "the way we've always done it" and to purposefully reevaluate and improve the command and control structures needed to integrate fire, maneuver, and information operations in the twenty-first century.

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Abbreviations and Acronyms

AJC2	adaptive command and control
AOR	area of responsibility
C4ISR	command, control, communications, computers, intelligence, surveillance, and reconnaissance
C-Day	Commencement of Deployment Day
CACE	Commander, Army Component Element
CDR	commander
CAECE	Commander, Aerial Expeditionary Component Element
CINC	commander in chief
CINCLANT	Commander in Chief, Atlantic Command
CMCE	Commander, Marine Corps Element
CNCE	Commander, Naval Component Element
COMMS	communications
CONUS	continental United States
D-Day	Commencement of Hostilities Day
DOTMLPF	Doctrine, Organization, Training, Materiel, Leader Development, Personnel, Facilities
DJTFAC	Deployable Joint Task Force Augmentation Cell
DoD	Department of Defense
ECOC	Experimental Command Operational Center
ENG	engineers
HQ	headquarters
I&O	Information and Operations
IDA	Institute for Defense Analyses
INTEL	Intelligence
ISR	intelligence, surveillance, and reconnaissance
IW	Information Warfare
JAAN	Joint Action of the Army and Navy
JAWP	Joint Advanced Warfighting Program
JFHQ	joint force headquarters

JOA	Joint Operations Area
JTF	joint task force
JTLM	Joint Theater Logistics Management
LNO	liaison officer
LOG	Logistics
MAINT	Maintenance
MED	Medical
N/A	not applicable
OPN(S)	Operations
SOF	Special Operations Force(s)
PSYOP/CA	Psychological Operations/Civil Affairs
RSTA	reconnaissance, surveillance, & target acquisition
TRANS	Transportation
US, U.S.	United States
USA	United States Army
USCINCLANT	United States Commander in Chief, Atlantic Command
USCINCPAC	United States Commander in Chief, Pacific Command
USJFCOM	United States Joint Forces Command
USMC	United States Marine Corps

Notes

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13. ABSTRACT (Maximum 200 words)

To prepare for contingencies where rapid response is essential, the Department of Defense must establish joint command and control capable of deploying quickly and operating with full effectiveness upon arrival. In 1999, the JAWP began development of an operational concept for a Joint Strike Force. Redesigning an operational-level headquarters for a joint task force (JTF) was part of this effort and is the subject of this paper. The JAWP team developed a future joint force headquarters (JFHQ) model to help improve the decision-making capabilities of the JTF commander and his staff. It is functionally designed around the flow of information, a network-centric design that takes advantage of information technologies to make quicker and better informed decisions. Today's information technologies already allow the future JFHQ to conduct split-based operations using a Fixed Headquarters echelon, a Deployable Headquarters echelon, and reach-back technologies such as secure communications, collaborative planning tools, and video teleconference. Because it is not a large, forward-deployed headquarters, the future JFHQ reduces sustainment and force protection requirements in the theater, and frees critical mobility assets to better support operational needs.

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